

AT&T WIRELESS SERVICES, INC.
BEAMREACH NETWORKS, INC.
BELLSOUTH CORPORATION
VERIZON WIRELESS, INC.
WIRELESS COMMUNICATIONS ASSOCIATION
INTERNATIONAL, INC.
WORLDCom, INC.

February 4, 2002

BY ELECTRONIC FILING

William F. Caton
Acting Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
Washington, DC 20554

Re: ***Ex Parte Communication***
 Establishment of Rules and Policies for the Satellite Digital Audio Radio
 Service in the 2310-2360 MHz Band
 IB Docket No. 95-91

Dear Mr. Caton:

In this proceeding, Wireless Communications Service (“WCS”) licensees and equipment manufacturers have demonstrated that WCS will be substantially harmed by the operation of high power terrestrial repeaters in the satellite Digital Audio Radio Service (“SDARS”), and have proposed that SDARS licensees be required to operate their terrestrial repeater networks at a power level no greater than 2 kW EIRP.¹ In response, the SDARS licensees have argued that the single frequency network design of their repeater networks depends upon the use of repeaters operating at up to 40 kW EIRP in order to ensure that the system is properly synchronized. However, analysis of data that only recently became public demonstrates conclusively that in at least one market ***XM is already using a network comprised solely of repeaters operating below 2 kW EIRP.*** In fact, more than one out of every four markets in which XM has deployed repeaters has no repeater operating above 5 kW EIRP. Clearly, there is no technical reason why all SDARS terrestrial repeaters could not serve their intended purpose while

¹ The WCS licensees have submitted a “sunset proposal” to the Commission that would allow the SDARS licensees to operate high power repeaters for a period up to five years and longer if all affected parties agree to such use.

operating at much lower power levels than the SDARS licensees would lead the Commission to believe.

In July 2001, both XM and Sirius sought special temporary authority (“STA”) to operate their nationwide experimental terrestrial repeater networks as part of their commercial service offerings. Those applications are attached hereto as Exhibit 1 (XM) and Exhibit 2 (Sirius). In those applications, the SDARS licensees listed only repeaters operating above 2 kW EIRP. After granting the requested STAs in September 2001,² the International Bureau requested that XM provide the location and operating parameters of its repeaters operating at or below 2 kW EIRP.³ On November 13, 2001, XM filed responsive information along with a request that it be granted confidential treatment.⁴ Although the International Bureau denied that request,⁵ the information became available in the public file only last week. A copy of this supplemental data submitted by XM is attached hereto as Exhibit 3.

As part of their campaign against a 2 kW EIRP limit on terrestrial repeater operations – a limit consistent with that imposed on every other service in this band – the SDARS licensees have asserted that the single frequency network (“SFN”) architecture of their systems requires the use of much higher power repeaters to synchronize other repeaters in a market. XM has described the concept as follows:

In an SFN, all repeaters in a given area must be precisely timed and coordinated with one another in order to provide reliable, high-quality service. A higher power repeater effectively serves as a keystone for managing the synchronization of the overall repeater network in a city. With a power cap of 2 kW, the ability to deploy this type of network would be limited.⁶

² See *XM Radio Inc.*, DA 01-2172 (Int’l Bur., rel. Sept. 17, 2001); *Sirius Satellite Radio, Inc.*, DA 01-2171 (Int’l Bur., rel. Sept. 17, 2001).

³ See Letter from Donald Abelson to XM Radio Inc., File No. SAT-STA-20010712-00063 (dated November 1, 2001).

⁴ See Letter from Bruce Jacobs to Donald Abelson, File No. SAT-STA-20010712-00063 (dated November 13, 2001).

⁵ See Letter from Cassandra Thomas to Bruce Jacobs, File No. SAT-STA-20010712-00063 File No. SAT-STA-20010712-00063 (dated Dec. 11, 2001).

⁶ Reply Comments of XM Radio Inc., at p. 15 (filed Dec. 21, 2001). See also Letter from Lon C. Levin to Donald Abelson and Thomas Sugrue, at p. 2 (dated Aug. 7, 2001) (“higher-power repeaters effectively become a keystone for managing the synchronization of the overall repeater network in a city”).

Clearly, XM would like to leave the impression that its SFN architecture fundamentally depends upon the ability to deploy a high power repeater operating well in excess of 2 kW EIRP.

The data now available demonstrate that, even in the absence of any power cap, XM is already serving an entire market using an SFN network of terrestrial repeaters operating at less than 2 kW EIRP. In Greenville, South Carolina, XM has a total of 13 terrestrial repeaters, none of which operates at a power level greater than 1.43 kW EIRP. Clearly, this information demonstrates that there is no technical reason why the SDARS licensees cannot serve an entire city without using high power repeaters.

Moreover, the data also show that in four more markets XM operates repeater networks with no more than 4 kW EIRP maximum, and that in 11 more markets there are no repeaters over 5 kW EIRP.

| City | # of Repeaters | Maximum EIRP |
|------------------|----------------|--------------|
| Birmingham, AL | 8 | 4.088 kW |
| Denver, CO | 8 | 4.260 kW |
| Harrisburg, PA | 11 | 4.028 kW |
| Jacksonville, FL | 7 | 3.210 kW |
| Kansas City, MO | 6 | 4.376 kW |
| Louisville, KY | 12 | 4.200 kW |
| Milwaukee, WI | 6 | 4.794 kW |
| Minneapolis, MN | 19 | 3.724 kW |
| Knoxville, TN | 12 | 4.434 kW |
| Orlando, FL | 5 | 3.112 kW |
| Philadelphia, PA | 43 | 4.166 kW |
| San Antonio, TX | 11 | 4.606 kW |
| St. Louis, MO | 18 | 4.718 kW |
| Tampa, FL | 17 | 4.848 kW |
| Toledo, OH | 5 | 3.280 kW |

As shown in the list above, the markets involved vary markedly in their characteristics. Some have multiple skyscrapers and large urban canyons (*e.g.*, Philadelphia), while others are characterized by rolling hills (*e.g.*, Birmingham) or surrounded by mountainous terrain (*e.g.*, Denver, Knoxville). They range from Minneapolis in the north to San Antonio in the south, Philadelphia in the east to Denver in the west. And the repeater networks themselves vary from as few as five to as many as 43 repeaters in any given market. Yet despite the diversity of these markets, they all share one common characteristic – there is no XM terrestrial repeater operating anywhere near 40 kW EIRP being used to synchronize the network.

Given that the SDARS licensees demonstrably *can* provide a quality service without the use of high power repeaters, the only question is whether they should be

required to do so rather than impose the costs for their network deployment on WCS licensees. The WCS Coalition believes that the question answers itself. The Commission should impose a presumptive 2 kW EIRP limit on SDARS terrestrial repeaters and allow the affected licensees to determine in individual cases whether conditions allow higher operating power levels.

Sincerely yours,

/s/
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AT&T Wireless Services, Inc.

/s/
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/s/
Karen B. Possner
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/s/
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